

U.S. Patent Application Serial No. 10/069,127
Response filed September 22, 2004
Reply to OA dated June 22, 2004

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-8 without prejudice or disclaimer and add new claims 9-17 as follows:

Claims 1-8 (Canceled).

Claim 9 (New): A slurry for a lithium ion secondary battery, comprising (i) a binder comprising a polymer containing structural units derived from 1,3-butadiene, said polymer having a 1,2-vinyl structure content in the range of 2% to 25% by mole based on the polymer and comprising 0% to 15% by weight, based on the weight of the total structural units of the polymer, of structural units derived from an ethylenically aliphatic hydrocarbon monomer, (ii) an active material, and (iii) a dispersion medium having a boiling point at normal pressure in the range of 80°C to 350°C.

Claim 10 (New): The slurry for a lithium ion secondary battery according to claim 9, wherein the polymer containing structural units derived from 1,3-butadiene is a copolymer containing structural units derived from 1,3-butadiene, structural units derived from an aromatic vinyl and structural units derived from an ethylenically unsaturated carboxylic acid ester.

Claim 11 (New): The slurry for a lithium ion secondary battery according to claim 10, wherein said copolymer is a random copolymer.

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Claim 12 (New): The slurry for a lithium ion secondary battery according to claim 9, wherein the polymer containing structural units derived from 1,3-butadiene is a poly-1,3-butadiene.

Claim 13 (New): The slurry for a lithium secondary battery according to claim 9, wherein the polymer containing structural units derived from 1,3-butadiene has a 1,2-vinyl structure content in the range of 5% to 20% by mole based on the polymer.

Claim 14 (New): The slurry for a lithium ion secondary battery according to claim 9, wherein said polymer is a mixture comprised of a copolymer containing structural units derived from 1,3-butadiene, structural units derived from an aromatic vinyl and structural units derived from an ethylenically unsaturated carboxylic acid ester, and poly-1,3-butadiene.

Claim 15 (New): The slurry for a lithium ion secondary battery according to claim 14, wherein the ratio of the copolymer containing structural units derived from 1,3-butadiene, structural units derived from an aromatic vinyl and structural units derived from an ethylenically unsaturated carboxylic acid ester, to the poly-1,3-butadiene is in the range of 50/50 to 99/1 by weight.

Claim 16 (New): An electrode made by using the slurry as claimed in claim 9.

Claim 17 (New): A lithium ion secondary battery provided with an electrode as claimed in claim 16.